

Request - Paul Schultzy

10/11

Access DB# 136048

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Oct 25 2003

Requester's Full Name: Sabeena Dey Examiner #: 74141 Date: 10/25/03  
Art Unit: 1616 Phone Number: 301 206 2222 Serial Number: 101816, 611  
Mail Box and Bldg/Room Location: 4C70, Rm, 4A45 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: 6 Alkyl or Alkenyl-4-aminopicolinates +  
Inventors (please provide full names): Burpee et al their use as herbicides

Earliest Priority Filing Date: 4/2/2003

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for 6-alkyl or alkenyl  
4 aminopicolinates of formula I in  
cl 1 and their uses

Please see attached sheet

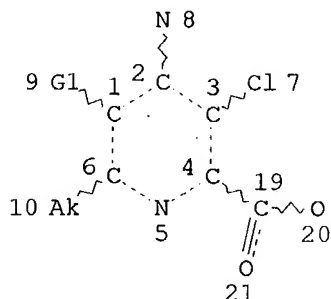
Thank you

### STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Technical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Date: _____	Other _____	Other (specify) _____

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L10

STR



VAR G1=H/F

NODE ATTRIBUTES:

NSPEC IS RC AT 8

CONNECT IS E1 RC AT 20

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L13 8 SEA FILE=REGISTRY SSS FUL L10

L14 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L13

=&gt; d l14 ibib abs hitstr 1-2

L14 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:825101 HCAPLUS

TITLE: 6-Alkyl or alkenyl-4-aminopicolinates and their use as herbicides

INVENTOR(S): Balko, Terry William; Buysse, Ann Marie; Fields, Stephen Craig; Irvine, Nicholas Martin; Lo, William Chi-Leung; Lowe, Christian Thomas; Richburg, John Sanders; Schmitzer, Paul Richard

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

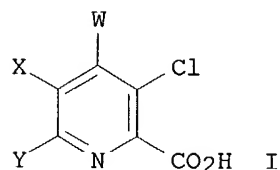
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004198608	A1	20041007	US 2004-816611	20040402
WO 2004089906	A2	20041021	WO 2004-US10358	20040402
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
 SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
 TD, TG

PRIORITY APPLN. INFO.:  
 GI

US 2003-459892P

P 20030402



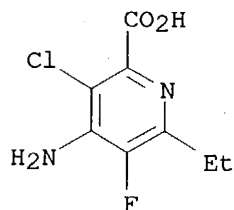
AB 4-Aminopicolinates with alkyl or alkenyl substituents in the 6-position (I, wherein X = H, F; Y = C1-4 alkyl, C1-4-alkoxy- or thioalkoxy-substituted alkyl, or C2-3 alkenyl; and W represents NO<sub>2</sub>, N<sub>3</sub>, NR<sub>1</sub>R<sub>2</sub>, etc.; R<sub>1</sub> and R<sub>2</sub> independently = H, C1-6 alkyl, etc.) and their amine and acid derivs. are potent herbicides demonstrating a broad spectrum of weed control. Thus, Me 4-amino-3-chloro-6-ethylpyridine-2-carboxylate (II) at 250 ppm controlled cocklebur (*Xanthium strumarium*), lamb's-quarters (*Chenopodium album*), and pigweed (*Amaranthus retroflexus*) by 95, 100, and 98%, resp. (postemergent control), with no injury to corn (*Zea mays*). Preemergent control of lamb's-quarters by II at 280 ppm was 98%.

IT 767334-35-0 767334-36-1 767334-37-2  
 767334-38-3 767334-39-4 767334-40-7  
 767334-41-8

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (as herbicide with broad spectrum of weed control)

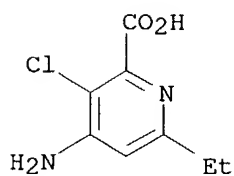
RN 767334-35-0 HCAPLUS

CN 2-Pyridinecarboxylic acid, 4-amino-3-chloro-6-ethyl-5-fluoro- (9CI) (CA INDEX NAME)

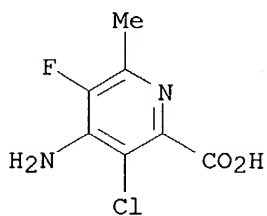


RN 767334-36-1 HCAPLUS

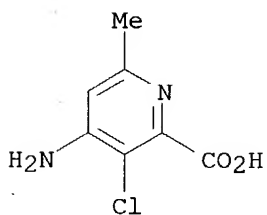
CN 2-Pyridinecarboxylic acid, 4-amino-3-chloro-6-ethyl- (9CI) (CA INDEX NAME)



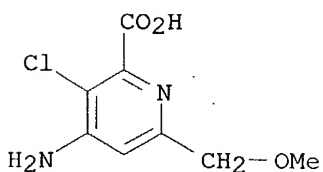
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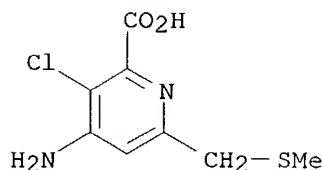
RN 767334-38-3 HCAPLUS  
 CN 2-Pyridinecarboxylic acid, 4-amino-3-chloro-6-methyl- (9CI) (CA INDEX NAME)



RN 767334-39-4 HCAPLUS  
 CN 2-Pyridinecarboxylic acid, 4-amino-3-chloro-6-(methoxymethyl)- (9CI) (CA INDEX NAME)

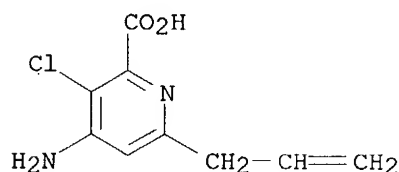


RN 767334-40-7 HCAPLUS  
 CN 2-Pyridinecarboxylic acid, 4-amino-3-chloro-6-[(methylthio)methyl]- (9CI) (CA INDEX NAME)



RN 767334-41-8 HCAPLUS

CN 2-Pyridinecarboxylic acid, 4-amino-3-chloro-6-(2-propenyl)- (9CI) (CA INDEX NAME)



L14 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:117817 HCAPLUS

DOCUMENT NUMBER: 138:153444

TITLE: Preparation of 6-aryl-4-aminopicolinic acids as herbicides with excellent crop selectivity

INVENTOR(S): Balko, Terry William; Buysse, Ann Marie; Epp, Jeffrey Brian; Fields, Stephen Craig; Lowe, Christian Thomas; Keese, Renee Joan; Richburg, John Sanders, III; Ruiz, James Melvin; Weimer, Monte Ray; Green, Renard Antonio; Gast, Roger Eugene; Bryan, Kristy; Irvine, Nicholas Martin; Lo, William Chi-Leung; Brewster, William Kirkland; Webster, Jeffrey Dale

PATENT ASSIGNEE(S): Dow Agrosiences LLC Patent Department, USA

SOURCE: PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

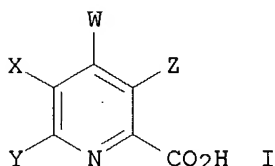
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

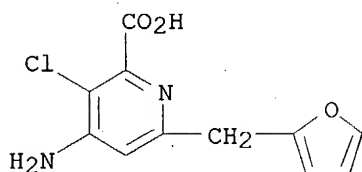
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003011853	A1	20030213	WO 2002-US24120	20020730
WO 2003011853	C1	20040715		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003114311	A1	20030619	US 2002-209448	20020730

US 6784137 B2 20040831  
 EP 1414814 A1 20040506 EP 2002-756794 20020730  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK  
 BR 2002011532 A 20040914 BR 2002-11532 20020730  
 PRIORITY APPLN. INFO.: US 2001-308617P P 20010730  
 WO 2002-US24120 W 20020730  
 OTHER SOURCE(S): MARPAT 138:153444  
 GI



AB 6-Aryl-4-aminopicolinic acids (shown as I; variables defined below; e.g. 4-amino-3-chloro-6-(4-methylphenyl)pyridine-2-carboxylic acid) and agriculturally acceptable derivs. of the carboxylic acid group are potent herbicides demonstrating a broad spectrum of weed control. Twelve herbicidal compns. are tabulated. Although the methods of preparation are not claimed, 47 example preps. are included and >200 specific I are mentioned along with phys. and/or herbicidal properties. Post-emergent herbicidal activities are included for some I against cocklebur (*Xanthium strumarium*), lambsquarter (*Chenopodium album*), barnyard grass (*Echinochloa crus-galli*) and yellow nutsedge (*Cyperus esculentus*); selectivity to wheat and corn is also shown. Pre-emergent herbicidal activities are included for some I against lambsquarter (*Chenopodium album*), pigweed (redroot) (*Amaranthus retroflexus*), crabgrass (large) (*Digitaria sanguinalis*), and giant foxtail (*Setaria faberii*). For I: X = H, halogen, C1-C6 alkyl, C1-C6 alkoxy, C1-C6 alkylthio, aryloxy, nitro, C1-C6 haloalkyl, C1-C6 haloalkoxy, thiocyanate, or cyano; Y = aryl, Ph, indanyl or naphthyl or heteroaryl (5- or 6-membered heteroarom. rings containing  $\geq 1$  heteroatoms which may be fused to other aromatic systems; aryl or heteroaryl group being unsubstituted or substituted with  $\geq 1$  substituents = halogen, hydroxy, nitro, cyano, aryloxy, formyl, C1-C6 alkyl, C2-C6 alkenyl, C2-C6 alkynyl, C1-C6 alkoxy, halogenated C1-C6 alkyl, halogenated C1-C6 alkoxy, C1-C6 acyl, C1-C6 alkylthio, C1-C6 alkylsulfinyl, C1-C6 alkylsulfonyl, aryl, C1-C6 OC(O)alkyl, C1-C6 NHC(O)alkyl, C(O)OH, C1-C6 C(O)Oalkyl, C(O)NH<sub>2</sub>, C1-C6 C(O)NHalkyl, C1-C6 C(O)N(alkyl)<sub>2</sub>, -OCH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -OCH<sub>2</sub>O- or -OCH<sub>2</sub>CH<sub>2</sub>O-). Z = halogen, C1-C6 alkyl, C1-C6 alkoxy, C1-C6 alkylthio, aryloxy, nitro, C1-C6 haloalkyl, C1-C6 haloalkoxy, thiocyanate, or cyano; and W = -NO<sub>2</sub>, -N<sub>3</sub>, -NR<sub>1</sub>R<sub>2</sub>, -N:CR<sub>3</sub>R<sub>4</sub> or -NHN:CR<sub>3</sub>R<sub>4</sub> (R<sub>1</sub> and R<sub>2</sub> = H, C1-C6 alkyl, C3-C6 alkenyl, C3-C6 alkynyl, aryl, heteroaryl, hydroxy, C1-C6 alkoxy, amino, C1-C6 acyl, C1-C6 carboalkoxy, C1-C6 alkylcarbamyl, C1-C6 alkylsulfonyl, C1-C6 trialkylsilyl or C1-C6 dialkyl phosphonyl or R<sub>1</sub> and R<sub>2</sub> taken together with N = 5- or 6-membered (un)saturated ring which may contain addnl. O, S or N heteroatoms; and R<sub>3</sub> and R<sub>4</sub> = H, C1-C6 alkyl, C3-C6 alkenyl, C3-C6 alkynyl, aryl or heteroaryl or R<sub>3</sub> and R<sub>4</sub> taken together with :C = a 5- or 6-membered saturated ring).

IT 496852-30-3P, 4-Amino-3-chloro-6-(2-furfuryl)pyridine-2-carboxylic acid  
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of 6-aryl-4-aminopicolinic acids as herbicides with excellent crop selectivity)  
RN 496852-30-3 HCAPLUS  
CN 2-Pyridinecarboxylic acid, 4-amino-3-chloro-6-(2-furanylmethyl)- (9CI)  
(CA INDEX NAME)

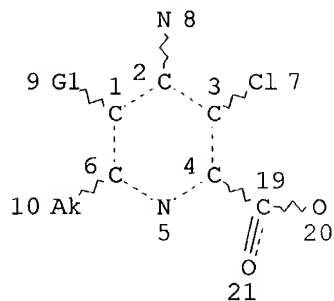


REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L10

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VAR G1=H/F

NODE ATTRIBUTES:

NSPEC IS RC AT 8

CONNECT IS E1 RC AT 20

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L12 0 SEA FILE=BEILSTEIN SSS FUL L10



**USPTO PATENT FULL-TEXT AND IMAGE DATABASE**[Home](#)[Quick](#)[Advanced](#)[Pat Num](#)[Help](#)[Next List](#)[Bottom](#)[View Cart](#)

Searching 1976 to present...

10/8/6, 611

**Results of Search in 1976 to present db for:****AN/(Dow AND AgroSciences): 107 patents.****Hits 1 through 50 out of 107**[Next 50 Hits](#)[Jump To](#) [Refine Search](#)

PAT. NO.	Title
1 6,800,614	<a href="#">T Pesticidal macrolides</a>
2 6,794,513	<a href="#">T Preparation of 3,6-dichloro-2-trichloromethylpyridine by vapor phase chlorination of 6-chloro-2-trichloromethylpyridine</a>
3 6,791,013	<a href="#">T Maize MIP synthase promoter</a>
4 6,784,137	<a href="#">T 6-aryl-4-aminopicolinates and their use as herbicides</a>
5 6,770,665	<a href="#">T Insecticidal 3-(2,6-disubstituted phenyl)-5-[4- or 5-arylthien-2- or -3-yl]-1,2,4-triazoles</a>
6 6,767,863	<a href="#">T High-strength low-viscosity agricultural formulations</a>
7 6,767,742	<a href="#">T Antibody-mediated down-regulation of plant proteins</a>
8 6,753,460	<a href="#">T Methods and genetic compositions to limit outcrossing and undesired gene flow in crop plants</a>
9 6,753,459	<a href="#">T Transgenic plants and methods for production thereof</a>
10 6,734,143	<a href="#">T 2-methoxyimino-2(pyridinyloxymethyl)phenyl acetamides useful as fungicides</a>
11 6,730,824	<a href="#">T Whisker-mediated transformation of cotton embryogenic callus tissues and regeneration of plants thereof</a>
12 6,717,035	<a href="#">T Transgenic plants expressing photorhabdus toxin</a>
13 6,706,740	<a href="#">T Fungicidal heterocyclic aromatic amides and their compositions, methods of use and preparation</a>
14 6,699,984	<a href="#">T Regulatory sequences for transgenic plants</a>
15 6,645,918	<a href="#">T N-([1,2,4]triazoloaziny)thiophenesulfonamide compounds and their use as herbicides</a>
16 6,641,741	<a href="#">T Removal and recovery of chloride from phosphonomethyliminodiacetic acid process brine</a>
17 6,599,859	<a href="#">T Mulch/herbicide composition</a>

- 18 [6,590,142](#) [T Transgenic plants expressing photorhabdus toxin](#)
- 19 [6,585,990](#) [T Compositions and devices using a spinosyn compound for control of insects](#)
- 20 [6,583,088](#) [T Use of spinosynes as soil insecticides](#)
- 21 [6,573,286](#) [T 2-\(2,6-disubstituted phenyl\)-4-aryl-5-alkyl-1,3-oxazoline compounds](#)
- 22 [6,566,403](#) [T N-acetylbenzamide fungicides](#)
- 23 [6,559,101](#) [T N- \(5, 7-dimethoxy \[1, 2, 4\] triazolo \[1, 5-a\] pyrimidin-2-yl\) arylsulfonamide compounds and their use as herbicides](#)
- 24 [6,521,622](#) [T Fungicidal heterocyclic aromatic amides and their compositions, methods of use and preparation](#)
- 25 [6,521,406](#) [T SpnG, a gene for spinosyn insecticide biosynthesis](#)
- 26 [6,518,222](#) [T N-\(\[1,2,4\] triazoloaziny\) thiophenesulfonamide compounds and their use as herbicides](#)
- 27 [6,500,405](#) [T Use of certain amides as probes for detection of antitubulin activity and resistance monitoring](#)
- 28 [6,495,738](#) [T Modification of fatty acid composition in plants by expression of a fungal acyl-CoA desaturase](#)
- 29 [6,462,240](#) [T Process for the selective deprotonation and functionalization of 3-substituted benzotrifluorides](#)
- 30 [6,455,504](#) [T Pesticidal macrolides](#)
- 31 [6,444,615](#) [T Herbicidal imidazolidinetrione and thioxo-imidazolidinediones](#)
- 32 [6,436,963](#) [T 2-methoxyimino-2-\(pyridinyloxymethyl\) phenyl acetamides with \(derivatised\) hydroxyalkyl derivatives on the pyridine ring](#)
- 33 [6,433,169](#) [T Process for the preparation of 2-alkoxy-6-trifluoromethyl-N-\(\[1,2,4\]triazolo\[1,5-c\] pyrimidin-2-yl\) benzenesulfonamides](#)
- 34 [6,432,990](#) [T 2-methoxyimino-2-\(pyridinyloxymethyl\) phenyl acetamides with polyether derivatives on the pyridine ring](#)
- 35 [6,432,951](#) [T 2-methoxyimino-2-\(pyridinyloxymethyl\)phenyl acetamides with \(derivatized\) hydroxyalkyl derivatives on the pyridine ring](#)
- 36 [6,423,730](#) [T Method to control termites](#)
- 37 [6,417,187](#) [T 1,2,4-triazole based compounds that can be used as insecticides or acaricides and processes](#)
- 38 [6,417,140](#) [T Herbicide suspension concentrates](#)
- 39 [6,413,997](#) [T 3-\(substituted phenyl\)-5-\(substituted heterocyclyl\)-1,2,4-triazole compounds](#)
- 40 [6,413,992](#) [T 3-\(substituted pyridyl\)-1,2,4-triazole compounds](#)
- 41 [6,410,828](#) [T Regulatory sequences useful for gene expression in plant embryo tissue](#)
- 42 [6,384,207](#) [T Regulatory sequences for transgenic plants](#)
- 43 [6,372,769](#) [T 5-carboxanilido-2,4-bis-trifluoromethylthiazoles and their use to control rice blast](#)
- 44 [6,369,083](#) [T 2-methoxyimino-2 \(pyrinyloxymethyl\) phenyl acetamides with polyether derivatives on the pyridine ring](#)
- 45 [6,362,335](#) [T Process for the preparation of 2-amino-5,8-dimethoxy\(1,2,4\)triazolo\(1,5c\)pyrimidine](#)
- 46 [6,355,660](#) [T Fungicidal heterocyclic aromatic amides and their compositions, methods of use and preparation](#)
- 47 [6,353,020](#) [T Fungicidal compositions containing N-acetylbenzamides](#)
- 48 [6,352,635](#) [T Selective electrochemical reduction of halogenated 4-aminopicolinic acids](#)
- 49 [6,350,611](#) [T Transcriptional regulatory region](#)

50 6,348,627  Aryl and heteroaryl cyclopropyl oxime ethers and their use as fungicides

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